

CHAPTER 6

RESULTS ON THE RELATIONSHIP BETWEEN GOVERNMENT OWNERSHIP AND CORPORATE PERFORMANCE: THE MALAYSIAN PERSPECTIVE

6.0 Introduction

This chapter presents empirical evidence on the relationship between government ownership and performance of Malaysian listed companies for the periods from 1995 to 2005. This chapter comprises two major discussions of the analyses on the three different periods –all periods (1995-2005), pre-crisis (1995-1996), and post (1999-2005). The crisis period (1997-1998) is excluded because the performance of most companies had dropped tremendously and some companies may even have collapsed (*The crisis periods' results can be referred to in the Appendices*). The reason why this crisis period is included in ALL periods analysis is so we can identify the movement of company's performance during all periods of study and also some companies may have already taken some action to improve their performance during the crisis. In the first discussion, this study reports the findings of 210 companies in Malaysia and determines whether government ownership has led to better performance. For comparison purposes, a second analysis will match 27 GLCs with 27 non-GLCs to identify which ones led to better performance. For every analysis, the discussion starts with a focus on the econometric issues such as stationary of the data, multicollinearity, heteroscedasticity, and auto-correlation. This is followed by a descriptive analysis and a comparison of the statistics (using the parametric t-test mean) with the matched analysis between GLCs and non-GLCs.

6.1 Results and Analysis

While various forms of acceptable governance in each country evolve from a country's history, values, and culture, certain characteristics of superior governance have been documented in the literature (e.g. Shleifer and Vishny, 1997). This study has to consider the role of corporate governance and government control in the context of Malaysian companies and its capital market, and examine the issue of value relevance of corporate governance and governmental control in assessing company value. This analysis also compares the financial performance of GLCs with non-GLCs, and determines whether government ownership and various governance measures contribute to accounting and market-based company valuation, using panel and pooled regression analyses.

Before estimating the proposed models, the stationary normal distribution of the data, multicollinearity, auto-correlation, and heteroscedasticity problems and some econometric issues were addressed. This section provides the results of the various econometric tests that were carried out to detect, and the measures taken to eliminate these problems.

6.1.1 Results of Data on Normality Test

The findings of the normality tests are shown in Table 6.1. The Results appear to suggest that the variables are not normally distributed. Based on Jarque-Bera, the Skewness and Kurtosis suggest that there is a problem of normality, therefore, it is likely that the adoption of Ordinary Least Squares (OLS) to analyse the data would produce biased and imprecise estimations.

Hence, for this reason, the Generalized Least Square (GLS) method is deemed appropriate and can be expected to yield a much better result (Gujarati, 2002).

Table 6.1: Normality Test Statistics of 210 Malaysian companies

	Mean	Median	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Probability
TOBINQ	1.4922	1.0167	1.5246	4.2299	31.2301	83593.94	0.0000
ROA	0.0278	0.0345	0.1223	-3.9809	54.3881	260272.10	0.0000
GOWNED	0.1429	0.0000	0.3500	2.0412	5.1667	2056.01	0.0000
SIZE	13.4739	13.4609	1.3647	0.1278	3.2416	11.91	0.0026
nDUAL	0.8758	1.0000	0.3299	-2.2783	6.1906	2978.25	0.0000
DEBT	0.4076	0.3757	0.3969	11.3182	210.8240	4206434.00	0.0000
AC	0.4571	0.2748	0.5638	2.6947	13.4908	13388.58	0.0000
GROWTH	0.1169	0.0743	0.1253	1.8319	7.4696	3214.82	0.0000

6.1.2 Correlation Matrix

In Table 6.2, the results present a correlation structure among selected variables that explain company performance. There is an apparent positive and significant relationship between government ownership and company performance. Similarly, government ownership was also found to have a positive relation with size of firm, and a positive correlation with *ROA*, *Size*, and *Growth*, whilst a negative correlation is observed between *Tobin's Q* and *Debt*. The positive correlation with *ROA* means that whilst government involvement remains, company performance increases; the government makes sure its business activities are active, positive, and target profit maximisation to increase shareholders' wealth. To align with this, the government controls and manages cash effectively. This is supported by a positive result and significant relationship between government and growth (cash to total assets). A positive correlation between government ownership and *Size* of company means that government involvement increases the size of a company. The increment of *Size* of company, which at the same time leads to the

growth of company, will reduce a company's leverage. The government will always monitor and keep track of its leverage to decrease company debt. Therefore, the results in Table 6.2 indicate a negative correlation between government ownership and *Debt*. Meanwhile, the agency cost variable shows a negative correlation with government ownership indicating that government has fewer expenses compared with non-government companies.

Table 6.2: Correlation Matrix for 210 Malaysian Listed Companies

	Gowned	Size	TobinQ	nDual	Debt	ROA	AC	Growth
Gowned	1.0000	0.2942(***) 0.0000	-0.0551(***) 0.0081	0.1500(***) 0.0000	-0.0480(*) 0.0212	0.0896(***) 0.0000	-0.2746(***) 0.0000	0.0556(***) 0.0075
Size		1.0000	-0.2344(***) 0.0000	0.0088 0.6727	0.1175(***) 0.0000	0.0586(***) 0.0048	-0.2003(***) 0.0000	-0.1290(***) 0.0000
TobinQ			1.0000	-0.0170 0.4137	0.1402(***) 0.0000	0.1962(***) 0.0000	0.1389(***) 0.0000	0.2111(***) 0.0000
nDual				1.0000	0.0275 0.1863	0.0693(***) 0.0009	0.0613(***) 0.0032	0.0206 0.3228
Debt					1.0000	-0.1719(***) 0.0000	0.0995(***) 0.0000	-0.1566(***) 0.0000
ROA						1.0000	0.0839(***) 0.0001	0.2297(***) 0.0000
AC							1.0000	0.1187(***) 0.0000
Growth								1.0000

***/**/* Correlation is significant at the 0.01/0.05/0.1

6.1.3 Analysis on Financial and Market Performance

Tables 6.3, 6.4, and 6.5 present the mean difference characteristics of financial and market performance between GLCs and non-GLCs based on all periods (1995-2005), pre-crisis period (1995-1996), and post crisis period (1999-2005). In Table 6.3, findings appear to suggest that a significant difference exists between the two groups based on performance, governance ownership, leverage and risk, growth opportunities, and agency cost. The hypothesis of no difference between the two groups is rejected at the conventional level. Results show that portfolios of control companies (non-GLCs) outperform GLCs for market performance (*Tobin's Q*). At the same time, the results of the test for *Tobin's Q* show negative and significant at the 1% level. As mentioned earlier, the government owns a large percentage of market capitalisations, thus, when Malaysia was hit by the crisis and the market price decreased, the impact was huge. This somehow contradicts with the findings by Ang and Ding (2005) and Singh and Siah (1998). They suggest that GLCs outperform non-GLCs on both counts of profitability (ROA and ROE). For example, Ang and Ding's results from the Singapore studies show that GLCs are able to achieve at least similar levels of profitability with that of non-GLCs.

Growth opportunities for GLCs tend to be higher than for non-GLCs. This result finds that GLCs maintain significantly higher cash to asset ratios than non-GLCs and the correlation is positively significant at the 1% level. In measuring agency costs, this study examined the expense to sales ratio (Ang et al., 2000) and results show that GLCs in fact have lower expenses at the 1% level. This finding is supported by Pearson's correlation in Table 6.2, which shows negative correlation and is significant for both ratios. In summary, this study can conclude that GLCs tend to exhibit higher valuation than non-GLCs due to their ability to earn higher returns

on their investments, including running more efficiently and with lower operational expenses than non-GLCs. The results show that GLCs only outperform non-GLCs in accounting-based measures but not in market-based valuation measures. This explains that GLCs are only efficient in the internal process but not the external process.

Table 6.3: Market and Financial Performance throughout ALL PERIODS (1995 to 2005)

Variable	No. of Observations	Market Performances		Financial Performances	
		Tobin Q	Stock	ROA	ROE
GLCs	30	1.2865	-0.0004	0.0546	0.0223
nonGLCs	180	1.5265	0.0024	0.0233	-1.2113
t-test		-3.5079	-0.5494	4.7026	4.7026

Table 6.4: Market and Financial Performance throughout PRE-CRISIS (1995 to 1996)

Variable	No. of Observations	Market Performances		Financial Performances	
		Tobin Q	Stock	ROA	ROE
GLCs	30	2.0476	-0.0089	0.0835	0.1326
nonGLCs	180	2.6091	0.0044	0.0552	0.1619
t-test		-2.1246	-0.6543	2.8578	-1.0772

Table 6.5: Market and Financial Performance throughout POST-CRISIS (1999 to 2005)

Variable	No. of Observations	Market Performances		Financial Performances	
		Tobin Q	Stock	ROA	ROE
GLCs	30	1.0924	0.0069	0.0517	0.0092
nonGLCs	180	1.1005	0.0064	0.0128	-1.9623
t-test		-0.1612	0.1552	4.1981	0.9642

6.2 Panel and Pooled Regression Analysis

For an objective evaluation of the impact of good governance, as proxied by government ownership and control on firm performance, the model includes seven important variables in addressing corporate governance issues –size, role of CEO, leverage, growth opportunities, agency cost, and profitability. Panel based regression is run over the periods from 1995 to 2005 and the findings are presented in the following Tables.

6.2.1 Results Based on Market Measure

In Table 6.6, the findings based on Tobin's Q suggest the model fitness with an F-value of 40.09 and significant at the conventional level, while the adjusted R^2 of 22.35% suggests that the joint null hypothesis of none of the variables is significant is rejected. The signs of the coefficients are as expected. These are consistent with the hypothesised objective in the Malaysian Context. Results support the contention that government ownership does provide an important explanation for performance, with (t-stat =1.682), significant at the 10% level. This is also consistent with the findings by Ang and Ding et al.(2005),and Dyck and Wruck (1998) who documented that government involvement through government agency leads to better performance. It is even more interesting to note that during the post crisis period, a similar relationship was more apparent and significant suggesting that the government involvement in the corporate sector was more prominent, and during the crisis period, no significant relationship was observed. The results show a positive correlation (t=1.9650) between government ownership and control. Besides government ownership, this study also observe a significant positive relationship between Tobin's Q and level of leverage suggesting that the leverage serves as a better control

monitoring mechanism for management activities and, hence, improve performance. This study consistent with Chong et al (2010) which studies in Malaysia found that firms with hug debt have performance better due to better monitoring and controlling their capital structure policies. These relationships are significant for all three sub-periods at the conventional level, respectively, ($t=5.1326$ for pre-crisis, $t=2.5527$ for during crisis, and $t=10.6095$ for post period).

For the agency cost variable, the findings appear to document a significant positive association between agency cost and company performance, significant at the 1% level ($t = 4.9177$ for all periods, $t=5.1860$ for post crisis). However, a negative correlation was observed though not statistically significant for the periods before and during crisis. The findings of the positive results, however, appear to be inconsistent with those of Ang and Ding (2000) who recorded a negative association between agency cost and company performance. Whilst growth opportunities, which is proxied by cash to total assets, appear to have an important impact on company performance, significant at the 1% for all periods including pre, during and post crisis. These findings explain that cash rich companies will have a greater incentive to engage in growth activities that lead to better performance.

In addition, the size is negatively correlated with company performance proxied by Tobin's Q (except during crisis which is negative but not significant), and is significant at the conventional level. This implies that a smaller size company performs better than a larger one. Finally, for non-duality, this provides a significant negative impact on company performance.

Table 6.6: Fixed Panel Regression Results for Tobin's Q as Performance Measure of Malaysian Listed Companies

Variable	ALL PERIODS (1995-2005)		PRE-CRISIS (1995-1996)		POST-CRISIS (1999-2005)	
	Co-efficient	t-statistics	Co-efficient	t-statistics	Co-efficient	t-statistics
C	2.2056	9.6427(***)	8.4739	8.9038 (***)	1.1648	4.9929(***)
Gowned	0.1085	1.6820(*)	0.1730	0.6391	0.1280	1.9560(**)
Size	-0.0993	-6.1316(***)	-0.4699	-6.8250(***)	-0.0525	-3.2025(***)
nDual	0.0277	0.4393	-0.5403	-2.0004(**)	0.0976	1.5325
Debt	0.7220	11.9297(***)	0.7855	5.1326(***)	0.7020	10.6095(***)
Agency Cost	0.1904	4.9177(***)	-0.0457	-0.2857	0.2030	5.1860(***)
Growth	1.7434	10.0771(***)	3.5025	5.2332(***)	1.4137	7.9542(***)
R-squared	0.2292		0.2172		0.1390	
Adj R-squared	0.2235		0.2020		0.1313	
F-statistics	40.0910		14.2576		18.0817	
Probability	0.0000(***)		0.0000(***)		0.0000(***)	

Notes 1: $Value = \beta_0 + \beta_1 Gowned + \beta_2 Size + \beta_3 nDual + \beta_4 Debt + \beta_5 AC + \beta_6 Growth \dots$ (Eq.1)

Notes 2: ***/**/* Correlation is significant at 0.01/0.05/0.1

6.2.2 Results Based on Accounting Measure

Table 6.7 presents findings from panel-based regression, which are based on accounting-based performance proxied by ROA. The model initially includes seven variables. Based on the F-value it is suggested that the model is fit for the analysis across all sub-periods, respectively, 31.537, 9.83 and 24.74. Adjusted R^2 of 18.36%, 14.44%, and R^2 of 18.09%, respectively, for pre, during, and post crisis periods suggest that explanatory variables used to explain firm performance are relatively lower. However, this study finds a number of explanatory variables besides government ownership, which also effectively affect firm performance. Therefore, this analysis can safely reject the joint null hypothesis that none of the explanatory variables will

have any important impact on firm performance. The findings clearly suggest that government ownership indeed provides strong predictive power concerning firm performance, significant at the 1% level with a t-value of 3.6082 across all sub-periods. These findings are consistent with the study by Ang and Ding et al.(2005), and Dyck and Wruck (1998) who documented that government involvement through government agency will lead to better performance of the company.

While findings exhibit a positive and significant association between firm size and firm performance across all sub-periods, respectively, ($t= 4.3547$ for all periods and $t=5.7099$ for post crisis are significant at the 1% level), they also indicate that a company with larger assets seems to perform better than one with smaller assets. This is again consistent with the findings by Ang and Ding et al. (2005), and Ros Haniffa (2000). Besides the size factor, this study also finds a significant negative association between debt ratio and firm performance and a significant association between agency cost and firm performance, significant at the conventional level across all sub-periods. This implies that a company with lower debt ratio tends to perform better; this result is consistent with the findings of McConnell and Servaes (1995), and Weir et al. (2002). However, the finding of a positive association between agency cost and performance appears to be inconsistent with the finding by Ang and Ding (2000), who recorded a negative association instead. This happens because Malaysian companies need to expend their resources more to increase sales by providing additional remuneration or incentive contracts to ensure management and shareholders' interests are aligned (Hadi, Fazilah and Ishak 2006).

A positive association between non-duality and firm performance suggests that the separation of Chairperson and CEO leads to better performance, significant at the conventional level across all sub-periods. This result consistent with Tam and Tan (2007) which one of their finding indicate that CEO and Chairperson is a different person have better controlling and transparent in handling company. Moreover, growth opportunities provide a significant and positive impact on firm performance across the sub-periods, significant at the 1 percent level, implying that cash rich companies will have more leverage in improving company performance by engaging in growth activities. Cash rich companies with good performance normally are able to meet due obligations and avoid potential downfall.

Table 6.7: Fixed Panel Regression Result for ROA as Performance Measure of Malaysian Listed Companies

Variable	ALL PERIODS (1995-2005)		PRE CRISIS (1995- 1996)		POST CRISIS (1999-2005)	
	Co-efficient	t-statistics	Co-efficient	t-statistics	Co-efficient	t-statistics
C	-0.1013	-4.5588(***)	-0.0168	-0.4825	-0.1841	-5.6704(***)
Gowned	0.0224	3.6082(***)	0.0335	3.3802(***)	0.0149	1.6621(*)
Size	0.0069	4.3547(***)	0.0024	0.9660	0.0130	5.7099(***)
nDual	0.0166	2.7125(***)	0.0137	1.3845	0.0244	2.7844(***)
Debt	-0.0328	-7.1332(***)	-0.0058	-1.0384	-0.0774	-9.3023(***)
Agency Cost	0.0205	5.4422(***)	0.0200	3.4149(***)	0.0284	5.1326(***)
Growth	0.1963	12.2462(***)	0.1286	5.2511(***)	0.0186	7.5432(***)
R-squared	0.1896		0.1607		0.1809	
Adj R-squared	0.1836		0.1444		0.1736	
F-statistics	31.5377		9.8375		24.7435	
Probability	0.0000(***)		0.0000(***)		0.0000(***)	

Notes 1: $Value = \beta_0 + \beta_1 Gowned + \beta_2 Size + \beta_3 nDual + \beta_4 Debt + \beta_5 AC + \beta_6 Growth \dots$ (Eq.1)

Notes 2: ***/**/* Correlation is significant at 0.01/0.05/0.1

6.3 Results and Analysis of Malaysian Matched Samples

In this section, the analysis is based on matching between the 27 GLCs with 27 (out of 180) non-GLCs from a total sample of 210 Malaysian companies. This matching concept is based on their size (ln (total Assets)) and industry. Initially the total number of GLCs was 30, however three (3) corporations, namely, Petronas, SimeDarby, and Tenaga Nasional Berhad (TNB) had to be taken out from the study because there are no other companies (non-GLC) within their industries that could match their large size. Therefore, the remaining GLCs were matched with their comparable non-GLCs for better results and analysis.

6.3.1 Descriptive Statistics

To examine the impact of corporate governance and government control on company value in the context of Malaysian companies, this study compared the financial performance of GLCs with non-GLCs to determine whether government ownership and various governance measures contribute to company performance. Table 6.8 presents the descriptive statistics and results of the test of normality assumption. Results suggest that observations are not normally distributed, based on Jarque-Bera.

Table 6.8: Normality Test Statistics of 54 Malaysian Companies

	Mean	Median	Std. Dev.	Skewness	Kurtosis	Jarque-Bera
Gowned	0.5000	0.5000	0.5004	0.0000	1.0000	99.0000
Tobin's Q	1.4697	1.0202	1.7958	5.5676	43.8964	44463.6100
ROA	0.0385	0.0440	0.0985	0.3214	15.2123	3701.4330
Debt	0.4413	0.3494	0.6708	8.9068	98.7302	234669.2000
Size	14.1324	14.1860	1.4234	-0.7361	3.8496	71.5083
nDual	0.9242	1.0000	0.2648	-3.2066	11.2820	2715.5420
Agency Cost	0.4084	0.1815	0.4236	0.5795	1.9032	63.0206
Growth	0.1191	0.0718	0.1347	2.1952	8.4864	1222.0530

6.3.2 Correlation Matrix

Findings from the results of the correlation matrix in Table 6.9 suggest that there is a significant, though different relationship between *ROA* and *Tobin's Q* with government ownership. *Tobin's Q* has a negative relationship with government ownership at the 1% level of significance. This implies that non-GLCs perform better than GLCs in terms of market-based performance. Meanwhile, government ownership has an influence on *ROA* when there is a positive significance at the 1% level. There is also a positive relationship (at the 1% level of significance) between government involvement and growth of company. This explains that the government in corporations leads and controls the cash and sales activities. It shows that GLCs maintain a significantly higher cash-to-assets ratio than non-GLCs. This is then followed by a negative and significant relationship between government ownership and debt. With high cash in hand, GLCs may reduce their debts. In terms of sales, GLCs keep increasing their sales and at the same time reduce their expenses. This finding is supported by a negative relationship between *Agency Cost* and government ownership and a positive relationship between government ownership and *non-Duality*.

Table 6.9: Correlation Matrix for 54 Matched Malaysian Listed Companies

	Gowned	TobinQ	ROA	Debt	Size	nDual	Agency Cost	Growth
Gowned	1.0000	-0.1057(***) 0.0100	0.1877(***) 0.0000	-0.1372(***) 0.0008	0.0190 0.6435	0.2736(**) 0.0000	-0.7756(***) 0.0000	0.1374(***) 0.0008
TobinQ		1.0000	0.1104 0.0071	0.2597(***) 0.0000	-0.3469(***) 0.0000	0.0493 0.2301	0.0185 0.6521	0.1534(***) 0.0002
ROA			1.0000	-0.2304(***) 0.0000	-0.0985(**) 0.0164	0.0283(**) 0.4915	-0.1517(***) 0.0002	0.3191(***) 0.0000
Debt				1.0000	0.10135(**) 0.0135	-0.0113 0.7842	0.1754(***) 0.0000	-0.0776(*) 0.0588
Size					1.0000	-0.0762(*) 0.0634	-0.0609 0.1379	-0.2788(***) 0.0000
nDual						1.0000	-0.3151(***) 0.0000	0.0218 0.5962
Agency Cost							1.0000	-0.0029 0.9435
Growth								1.0000

***/**/* Correlation is significant at 0.01/0.05/0.1 level

6.3.3 Financial and Market Performance of GLCs and Non-GLCs

In this section, the study will investigate the source of superior GLC performance by comparing various measures of financial and market performance of GLCs and non-GLCs. The mean of the financial and market performance of GLCs and non-GLCs is taken from the results of this study. Performance analysis was further categorised based on all, pre- and post-crisis periods to isolate crisis on performance. These are presented in Tables 6.10, 6.11, and 6.12, respectively.

Based on the findings, it appears that non-GLCs outperformed GLCs on market-based performance, *Tobin's Q*. It can be seen from Table 6.10 that the mean performance of non-GLCs is higher than that of GLCs for all periods even though GLCs show persistent improvement. While accounting-based measure of *ROA* appears to suggest that the GLC companies performed better than the non-GLC companies did for all periods. However, the differences in ROE and P/E ratios between GLCs and non-GLCs are not statistically significant. When broken into different periods of study, the results indicate the same whether pre or post period.

A detailed analysis of the source of ROE through the DuPont model is performed by breaking down ROE into Profit Margin, Turnover, and Leverage. The results identify that the main contributor to GLCs performance are profit margin and asset turnover. The profit margin of GLCs is higher than that of non-GLCs at the 1% level of significance. It can be seen that there is a huge difference on profit margin, especially after the crisis period during which the mean of GLCs is positive compared with the non-GLCs' negative. Sales turnover also indicates that GLCs outperformed non-GLCs for all periods (specifically during pre and post crisis). Since

asset turnover captures how well a company utilises its assets, higher performance appears to imply that GLCs do make better use of their assets than non-GLCs. In leveraging, non-GLCs seem to have higher debts than GLCs, however, this is not significant for all periods except pre-crisis. Lastly, the equity to asset ratio for GLCs is better than for non-GLCs and is significant at the 1% level.

Table 6.10: Market and Financial Performance throughout ALL PERIODS (1995 to 2005)

Variable	No. of Observations	Market Performances		Financial Performances	
		Tobin Q	Stock	ROA	ROE
GLC	27	1.2801	-0.0007	0.0570	0.0198
GLC	27	1.6593	0.0044	0.0201	0.0865
t-test		-2.5855	-0.8511	4.6492	-1.3797

Table 6.11: Market and Financial Performance throughout PRE-CRISIS (1995 to 1996)

Variable	No. of Observations	Market Performances		Financial Performances	
		Tobin Q	Stock	ROA	ROE
GLC	27	2.0818	-0.0166	0.0871	0.1361
GLC	27	2.3031	0.0204	0.0484	0.2347
t-test		-2.2647	-1.4696	3.3811	-1.3707

Table 6.12 Market and Financial Performance throughout POST-CRISIS (1999 to 2005)

Variable	No. of Observations	Market Performances		Financial Performances	
		Tobin Q	Stock	ROA	ROE
GLC	27	1.0722	0.0076	0.0500	0.0003
GLC	27	1.0548	0.0041	0.0068	0.0308
t-test		0.2251	0.8525	4.1835	-0.5071

6.4 Panel and Pooled Regression Analysis

Tables 6.13 and 6.14 summarise panel fixed regression for the relationship between performance and company specific characteristics.¹¹ The two measures of performance used are Tobin's Q for market performance and ROA for accounting performance. This study finds that the selected model is fit and significant for both measurements. Tobin's Q F-statistics of 20.3841 and adjusted R² of 35.72% and ROA F-statistics of 30.5213 and adjusted R² of 45.84% indicate that there may be other equally important factors to explain the values of both measurements.

Both tables show findings of different performance measurement results of government-owned companies and their specific characteristics factors. Tobin's Q, as a proxy for market-based performance measurement for company performance, shows a negative correlation with government ownership, agency cost, and size, but is significantly positive in growth (cash to assets) and leverage (debt). However, different results emerged once this study used the accounting based-measure of ROA. This shows that there is a positive relationship between ROA and government ownership, agency cost and growth, but negative and significant with debt. These findings based on accounting measurements are consistent with the findings of Ang and Ding (2005), and Claessens (1997), which indicated that state ownership has a positive correlation with company performance after controlling for differences in other governance mechanisms, leverage, growth, and profitability.

The results also indicate a significant relationship between performances and leverage (debt). These results are consistent with Roszaini, Haniffa, and Hudaib (2006) implying that different measurements produce different relationships between company performance and company

¹¹This study also tests this data by using Random Effect and Generalized Least Squared (GLCs) to check robustness. Results indicate that Fixed Effect model is the best model used in this study. (Refer to Table 6.18).

characteristics as described earlier. For example, based on Tobin's Q measure, a positive relationship is observed between Tobin's Q and debt but negative between ROA and debt in the accounting-based measure. The negative relationship between ROA and Debt is due to company tend to borrow more especially small companies which propose to increase their size (asset). This result is consistent with Fu et al. (2002). His study on the relationship between financial capital and profitability for 1,276 small firms in Taiwan from 1992-1997. He found a significantly negative relationship between debt financing and profitability due small have to borrow more to increase their activities and due to that, it gave impact on their profit. A positive correlation between Tobin Q's and leverage suggests that leverage serves as an effective mechanism to control management and improve performance, while a negative relationship suggests that the close relationship between businesses and banks in Malaysia will make leverage an ineffective control mechanism.

Table 6.13: Fixed Panel Regression Results for Tobin's Q as Performance Measure of Malaysian Matched Samples

Variable	ALL PERIODS (1995-2005)		PRE-CRISIS (1995-1996)		POST-CRISIS (1999-2005)	
	Co-efficient	t-statistics	Co-efficient	t-statistics	Co-efficient	t-statistics
C	3.2439	7.5851 (***)	16.9624	8.0837 (***)	1.4896	4.5286 (***)
Gowned	-0.2175	-1.9447 (**)	-2.1679	-3.7743 (***)	0.0141	0.1663
Size	-0.1559	-5.9196 (***)	-.09055	-7.1603 (***)	-0.0066	-3.2970 (***)
Non-Duality	0.1155	0.8438	-1.0414	-1.3222	0.0527	0.5089
Debt	0.8345	14.0750 (***)	0.7352	4.0510 (***)	0.7724	13.4630 (***)
Agency Cost	-0.2599	-1.9995 (**)	-2.6798	-3.4447 (***)	-0.0397	-0.4069
Growth	1.3037	4.8732 (***)	8.8484	4.2391 (***)	1.1825	5.8902 (***)
R-squared	0.3756		0.5397		0.3885	
Adj R-squared	0.3572		0.5025		0.3666	
F-statistics	20.3841		14.5113		17.7869	
Probability	0.0000 (***)		0.0000 (***)		0.0000 (***)	

Notes 1: $Value = \beta_0 + \beta_1 Gowned + \beta_2 Size + \beta_3 nDual + \beta_4 Debt + \beta_5 AC + \beta_6 Growth \dots$ (Eq.1)

Notes 2: ***/**/* Correlation is significant at 0.01/0.05/0.1

Table 6.14: Fixed Panel Regression Results for ROA as Performance Measure of Malaysian Matched Samples

Variable	ALL PERIODS (1995-2005)		PRE CRISIS (1995-1996)		POST CRISIS (1999-2005)	
	Co-efficient	t-statistics	Co-efficient	t-statistics	Co-efficient	t-statistics
C	0.0025	0.0741	0.1184	2.4073(**)	-0.0424	-0.9693
Gowned	0.0248	2.8648(***)	0.0434	3.3483(***)	0.0084	0.7418
Size	-0.0005	-0.2532	-0.0072	-2.4907(**)	0.0041	1.5419
Non-Duality	0.0086	0.7967	-0.0077	-0.4291	0.0069	0.4929
Debt	-0.0167	-4.6115(***)	-0.0063	-1.5546	-0.0312	-5.6618(***)
Agency Cost	0.0170	1.6085	0.0164	0.8842	-0.0009	-0.0694
Growth	0.1508	6.6473(***)	0.2312	4.9037(***)	0.1086	3.9261(***)
R-squared	0.4739		0.4351		0.4807	
Adj R-squared	0.4584		0.3895		0.4622	
F-statistics	30.5213		9.5332		25.9204	
Probability	0.0000(***)		0.0000(***)		0.0000(***)	

Notes 1: $Value = \beta_0 + \beta_1 Gowned + \beta_2 Size + \beta_3 nDual + \beta_4 Debt + \beta_5 AC + \beta_6 Growth \dots (Eq.1)$

Notes 2: ***/**/* Correlation is significant at 0.01/0.05/0.1

6.5 Comparison between GLCs Matched With Samples of Non-GLCs

In addition to the above analysis, a sample of non-GLCs is included for analysis in which each GLC is paired with a non-GLC based on size and industry. Tables 6.15 and 6.16 summarise panel-based fixed regression in estimating the relationship between performance and specific characteristics of GLCs with non-GLCs. First, results in both tables are similar to those in Table 6.14 based on both measurements. Second, non-duality does *not* seem to be an important contributor to company performance for GLCs and non-GLCs since it is not significant at all for either measurement in both categories. Third, agency cost is an important contributor to

performance among GLCs whereby a negative relationship indicates that the government's monitoring of company expenses leads to an increase in performance. Lastly, GLCs have better control of their operating expenses than non-GLCs. This is supported by results on the government-owned companies' excess cash holdings and better profits than the non-GLCs.

Based on evidence shown in Tables 6.15 and 6.16, it can be concluded that in addition to them being leaner organisations, GLCs, when compared to non-GLCs, implement better governance mechanisms, and stronger monitoring of their operations.

Table 6.15: Fixed Panel Regression Results for Tobin's Q and ROA as Performance Measures for ALL PERIODS (1995-2005) – 27 Malaysian GLCs

Variable	TOBIN'S Q			RETURN ON ASSETS (ROA)		
	Co-efficient	t-statistics	Probability	Co-efficient	t-statistics	Probability
C	1.8779	2.2291	0.0266(**)	-0.0789	-0.9708	0.3325
Size	-0.0866	-3.1719	0.0017(***)	0.0043	1.6650	0.0970(*)
Non-Duality	0.3122	0.4172	0.6768	0.0570	0.7828	0.4344
Debt	0.4588	3.3167	0.0010(***)	-0.0763	-5.2173	0.0000(***)
Agency Cost	-1.2789	-3.8321	0.0002(***)	0.1315	4.4918	0.0000(***)
Growth	1.7276	7.0062	0.0000(***)	0.1617	5.9695	0.0000(***)
R-squared	0.3166			0.6390		
Adj R-squared	0.2776			0.6183		
F-statistics	8.1074			30.9707		
Probability	0.0000(***)					

Notes 1: $Value = \beta_0 + \beta_1 Size + \beta_2 nDual + \beta_3 Debt + \beta_4 AC + \beta_5 Growth \dots$ (Eq.2)

Notes 2: ***/**/* Correlation is significant at 0.01/0.05/0.1

Table 6.16: Fixed Panel Regression Results for Tobin's Q and ROA as Performance Measures for ALL PERIODS (1995-2005) – 27 Malaysian Non-GLCs

Variable	TOBIN'S Q			RETURN ON ASSETS (ROA)		
	Co-efficient	t-statistics	Probability	Co-efficient	t-statistics	Probability
C	4.3007	6.2613	0.0000(***)	-0.0126	-0.3058	0.7600
Size	-0.2298	-5.1638	0.0000(***)	0.0012	0.4653	0.6421
Non-Duality	0.1219	0.7564	0.4500	0.0044	0.4219	0.6734
Debt	0.8708	11.6731	0.0000(***)	-0.0124	-3.5507	0.0005(***)
Agency Cost	-0.1625	-1.0140	0.3115	0.0053	0.4963	0.6201
Growth	1.5097	3.1021	0.0021(***)	0.1398	4.5406	0.0000(***)
R-squared	0.4638			0.3951		
Adj R-squared	0.4331			0.3606		
F-statistics	15.1343			11.4315		
Probability	0.0000(***)			0.0000(***)		

Notes 1: $Value = \beta_0 + \beta_1 Size + \beta_2 nDual + \beta_3 Debt + \beta_4 AC + \beta_5 Growth \dots$ (Eq.2)

Notes 2: ***/**/* Correlation is significant at 0.01/0.05/0.1

6.6 Chapter Summary

1. This chapter is drawn from studies on corporate finance and corporate governance literature that explain the ownership control structure of Malaysian listed companies and their performance. More specifically, this study compares performance and its determinants of GLCs with non-GLCs with some company specific characteristics using a sample of 210 listed companies on the Main Board of Bursa Malaysia for a period of 10 years (1995-2005). Two performance measures, namely, market-based Tobin's Q and accounting-based ROA have been used in conducting the analyses in this study. Evidence from descriptive statistics suggests that non-GLC firms outperformed GLCs based on Tobin's Q. However, once accounting-based measure is employed, GLCs appear to have performed better. The different result in results for Malaysian companies (GLCs and nonGLCs) when using different (financial and market) measures of performance. GLCs seem perform better than nonGLCs

but not in market measurement when nonGLCs outperform than GLCs. This happens because the government may tend to cover up for its companies to make sure the company will make a profit, which will create confidence among its stakeholders – the citizens. However, if this does not happen in the market situation, where investors expect government intervention with red tape or bureaucracy and a lack of transparency, it will make them lose confidence and discourage them from investing in GLCs. Furthermore, the majority of government companies are handled by government senior officers with a lack of experience of handling companies, especially multinational companies compared with non-GLCs, therefore, potential investors doubt whether they can handle the company to make it move forward and compete with other companies, especially non-GLCs. Therefore, the results show that GLCs do not perform well in market performance compared to non-GLCs.

Regression estimates from panel-based regression based on the two performance measures suggest that government ownership plays an important role in company performance after controlling for company specific factors, whilst leverage serves as an important control mechanism that leads to better performance beyond government involvement. In general, it can be concluded that GLCs performed better than non-GLCs on overall performance. The government, being the major shareholder through its agencies in providing essential services and utilities to the nation, would do everything it can to ensure the performance of their investments. Through Khazanah Nasional (government agency) and several other investment wings, vital services and utilities such as electricity, telecommunications, postal services, airlines, airport, public transportation, water and sewerage, banking and financial services, have to be delivered by these GLCs as efficiently and effectively as possible to the nation to avoid any instance of underperformance by any GLC.

In the second part on the matched samples, this study investigates the governance system of the GLCs and non-GLCs after controlling for the firms' specific characteristics such as corporate governance, agency cost, growth, risk, and profitability. Two measurements of performance, which are Tobin's Q and ROA, were also used to determine whether government involvement, governance, and firm specific characteristics affect company performance. Depending on which type of measurement was used –whether based on ROA or on Tobin's Q– the results show different findings. Using ROA (accounting measure), GLCs were found to have performed better than non-GLCs even after controlling for firm specific factors such as corporate governance, growth, risk/leverage, and profitability, whilst findings based on Tobin's Q measures show the contrary – non-GLCs appear to have performed better than GLCs.

In summary, GLCs seem to be of better value and have better management of expenses compared to non-GLCs. GLCs also keep growing over the years as a result of government intervention and monitoring of the companies to ensure they are on the right track.